

Unit Title:	Major Topics:	Days:	Essential Standards:	Clarifying Objectives:
Scientific Reasoning	Making Measurements Analyzing Graphs Conversions	9	Phy.1.1 - Analyze the motion of objects	Phy.1.1.1
Kinematics in 1-Dimension	Frame of Reference Distance and Displacement Speed and Velocity	8	Phy.1.1 - Analyze the motion of objects	Phy.1.1.1 Phy.1.1.2
Newton's Laws and Vectors	Balanced Forces Newton's First Law Unbalanced Forces Gravity Vector Math Newton's Second Law Newton's Third Law	10	Phy.1.2 - Analyze systems of forces and their interaction with matter	Phy.1.2.1 Phy.1.2.2 Phy.1.2.3 Phy.1.2.4
Kinematics in 2-Dimensions	Projectile Motion Circular Motion Centripetal Force	10	Phy.1.1 - Analyze the motion of objects	Phy.1.1.3 Phy.1.2.5
Energy, Work, Power	Conservation of Energy Potential Energy Kinetic Energy Work Power	10	Phy.2.1 - Understand the concepts of work, energy, and power, as well as the relationship among them	Phy.2.1.1 Phy.2.1.2 Phy.2.1.3
Momentum	Collisions Conservation of Momentum Conservation of Energy	6	Phy.1.3 - Analyze the motion of objects based on the principles of conservation of momentum, conservation of energy, and impulse	Phy.1.3.1 Phy.1.3.2
Electrostatics and Interactions	Electrical Charges Electric Fields Coulomb's Law	8	Phy.3.1 - Explain charges and electrostatic systems	Phy.3.1.1 Phy.3.1.2 Phy.3.1.3 Phy.3.1.4 Phy.3.1.5
Electrical Circuits	Ohm's Law Series Circuits Parallel Circuits	10	Phy.2.3 - Analyze the nature of moving charges and electric circuits	Phy.2.3.1 Phy.2.3.2 Phy.2.3.3 Phy.2.3.4 Phy.2.3.5
Magnetism	Magnets Magnetic Fields Electromagnetism	9	Phy.3.2 - Explain the concept of magnetism	Phy.3.2.1 Phy.3.2.2 Phy.3.2.3
Waves	Waves Sound Waves Light Waves	6	Phy.2.2 - Analyze the behavior of waves	Phy.2.2.1 Phy.2.2.2 Phy.2.2.3